REMARKS

This responds to the Office Action mailed on September 10, 2008 which has been made Final. The Examiner is thanked for his interview on December 2, 2008.

Claims 1 – 13 remain active in this application. Claims 14 – 23 have been previously canceled. No amended is made to either the Specification or the Claims in this response. The inventorship of the application has not changed due claim cancellation.

Claims 1, 3, 4, 6-8, 11 stand rejected under 35 U.S.C. § 103(a) under Eggleton et al. (USP 6,438,277) in view of Rabiei et al. (P. Rabiei, W.H. Steir, C. Zhang, L.R. Dalton, "Polymer Micro-Ring Filters and Modulators", J. Lightwave Tech., Vol.20, No. 11, November 2002, pp. 1968-1975).

Claim 2 stands rejected under 35 U.S.C. § 103(a) as being upatentatble over Eggleton et al in view of Rabiei et al. and further in view of Heimala et al. (P. Heimala, P. Katila, J. Aarnio, "Integrated Optical Ring Resonator on Silicon with Thermal Tuning and in Situ Temperature Measurement", Proc. SPIE, Vol. 2695, January 1996, pp 71-77).

Claims 5, 9 and 10 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eggleton et al. in view of Rabiei et al. and further in view Koizumi et al (USP 5,696,543).

Claim 12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Eggleton et al. in view of Rabiei et al and further in view of Schwindt et al (USP 6,720,782).

Claim 13 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Eggleton et al. in view of Rabiei and further in view of Sorin (USP 5,982,791).

§103 Rejection of the Claims

It is a well established that, for determination of obviousness *vel non*, the Examiner must consider the claimed subject matter "as a whole" and must directly answer *each and every* recitation in the claims. The Supreme Court in *KSR* stated that an indication of a teaching, suggestion, or motivation in the prior art may be part of the obviousness analysis, since there is no necessary inconsistency between the idea underlying the teaching, suggestion and motivation test and the *Graham* analysis. (*KST International Co. v. Teleflex Inc.* 550 U.S.____, p. 15 slip opinion (2007) citing *Graham v. John Deer Co. of Kansas City,* 383 U.S. 1, 15-17 (1996).)

The invention is a feedback controlled photonic frequency selection circuit capable of selecting a particular frequency of light in a deliberate stepped manner. It is respectfully submitted that the Examiner has not considered the invention as a whole and has failed to establish a *prima facie* case of obviousness. For example, the Examiner admits that Eggleton "...does not disclose a photonic circuit being capable of selecting a particular frequency of light in a deliberate stepped manner." The recitation of Rabiei et al. is used in each and every one of the obvious rejections as a secondary reference in conjunction with Eggleton et al. and sometimes in view of further other references to show a thermally tuned resonator for adjusting its center wavelength. The Rabiei et al. publication only discloses a prototype of a steady state device where the temperature is controlled to pick off on frequency. There is no feedback loop shown.

In this Response the applicants have submitted a Rule 131 Declaration to remove the secondary reference to Rabiei et al. This is the first time that this reference has been cited and could not have been earlier removed. Rabiei would qualify as §102(a) prior art having been published less than one year before the file of Applicants patent application. Applicant conceived their invention before the Rabiei et al. reference (which has an effective date of November 2002), as evidence by their submitted Invention Disclosure and they worked diligently to the reduction of practice by the filing of their patent

application reflecting their invention on June 26, 2003. Note that the invention disclosure and patent application share the same drawing.

Given the swearing behind of the Rabiei et al. reference which is used in each and every §103(a) rejection of the pending claims, the Claims are in a condition of Allowance. Eggleton et al. does not by itself obviate the present invention.

All dependent claims are allowable being dependent on allowed independent claims 1 and 7.

The new cited reference to Heimala et al. has been reviewed and shows the use of a thermal optic effect to tune a resonator device to one frequency. It does not show the use of a Kelvin probe such as the instant invention. The inventive use of a Kelvin probe eliminates other resistive effects in the photonic circuit and measures the temperature only at the point of interest.

With elimination of the Rabiei et al. reference, it is submitted that all the remaining claims are in condition for allowance and notification to that effect is earnestly requested. Since there has been no amendment to the claims, the Applicants feel no new search of the claims is warranted. The examiner is invited to telephone the Applicant's attorney at (703) 867-8334 to facilitate prosecution of the application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0130 on behalf of Customer No. 22,500.

Respectfully Submitted,

Dated: December 9, 2008

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